

We claim:

1. Beaded black, comprising carbon black and at least one pelletizing additive and at least one synthetic oil.
2. The beaded black according to claim 1, wherein the pelletizing additive content is 0.1 to less than 10 wt.% and the oil content is 1 to 12 wt.%, relative to its total weight.
3. A beaded black according to claim 1, wherein the starting carbon black displays a DBP adsorption of between 40 and 250 ml/100 g and a nitrogen surface area of 5 to 500 m²/g.
4. The beaded black according to claim 1, wherein the pelletizing additive is a wax.
5. The beaded black according to claim 1, wherein the pelletizing additive is a resin.
6. The beaded black according to claim 1, wherein the pelletizing additive is a mixture of wax, mixture of resin or a mixture of wax and resin.
7. The beaded black according to claim 1, wherein the synthetic oil is a mineral oil.
8. A process for the production of a beaded black according to claim 1, comprising mixing together powdered carbon black and an oil/pelletizing additive mixture.
9. The process according to claim 8, further comprising spraying the oil/pelletizing additive mixture onto the starting black ahead of the pelletizing machine or in the first third of the pelletizing machine while it is still in powder form in a pelletizing machine with a pin shaft, whereby the pelletizing machine displays an intake zone, a mixing and pelletizing zone and an outlet zone, feeding powdered carbon black into the intake zone of the pelletizing machine and continuously removing the carbon black from the outlet of the pelletizing machine.
10. The process according to claim 9, wherein the oil/pelletizing additive mixture is sprayed over the starting carbon black while it is still in powder form by 1 to 6 nozzles, whereby the nozzles are arranged on one level perpendicular to the axis of the pin shaft.

11. The process according to claim 9, wherein the retention time of the carbon black in the pelletizing mixture is from 20 to 600 seconds.
12. The process according to claim 9, wherein up to 60 wt.% of beaded black in the same grades of carbon black is added to the powdered carbon black as an inoculum.
- 5 13. The process according to claim 9, wherein the powdered carbon black is precompressed to a bulk density of 150 to 350 g/l before pelletization.
14. A rubber or plastic article containing the beaded black according to claim 1 as a filler and/or pigment in rubber and plastic articles and as a pigment for the production of printing inks.
- 10 15. A printing ink containing the beaded black according to claim 1 as a pigment. A method to improve the abrasion resistance of a printing ink comprising adding to said printing ink the beaded black according to claim 1.
16. The beaded black according to claim 1 which has a total bead hardness greater than 6 kg.
- 15 17. The beaded black according to claim 1 which has a total bead hardness greater than 7 kg.
18. The beaded black according to claim 1 which has a bead strength of the bead fraction of 0.5 mm - 0.71 mm greater than 7 KPa.
19. The beaded black according to claim 1 which has a bead strength of the bead fraction of 0.5 mm - 0.71 mm greater than 80 KPa.
- 20 19. The beaded black according to claim 1 wherein the bead strength of the of 0.71 mm - 1.00 mm bead fraction is greater than 60 Kpa.
- 20 20. The beaded black according to claim 1 wherein the bead strength of the of 0.71 mm - 1.00 mm bead fraction is greater than 68 Kpa.
- 21 21. The beaded black according to claim 1 wherein the carbon black has a DBP adsorption of between 40 and 250 ml/100 g and a nitrogen surface area of 5 to 500 m²/g.
- 25 22. The process according to claim 8 wherein mixing takes place in a pelletizing machine with a pin shaft having pin tips wherein the speed of the pin shaft is such

Sub
A1

Rev
126

23
24
25

25
26

26
27

27
28

10

15

20

that the peripheral speed of the pin tips is between 1 and 30 m/s and the retention time of the carbon black is between 20 and 600 seconds.

The process according to claim wherein the retention time is 20 to 180 seconds.

The process according to claim 9 wherein the mixture is sprayed very finely over powdered starting carbon black with an average droplet size of less than 50 μm .

The process according to claim 8 wherein the oil/pelletizing additive mixture is first melted by heating it to a temperature between the melting temperature and the decomposition temperature of the pelletizing additive and then feeding molten pelletizing additive to a spray nozzle.

The process according to claim 8 wherein the spraying takes place through two fluid nozzle wherein the average droplet size is about 20 μm .

The method according to claim 9 wherein the oil/pelletizing additive mixture is sprayed on to the carbon black upstream of the pelletizing machine or in a first third of the pelletizing machine.